

UNITED STATES
DEPARTMENT OF THE INTERIOR

—
GEOLOGICAL SURVEY

—
9-138

VII.

H. S. Ladd

VIII

Sweet Springs Area
w Va. - Va.

1941-42

Revised 8/7/42

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1944-42

Revised 8/7/42

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Aug 22 - Fri (cont.)

1941

Crest Potts Mt. to Back Valley rd.

[N58E, 20SE - Clinch. 0.2 mi. from point Rd. - on R, coming from Fire Tower Rd]

0.0 - Clinch - Clinch - contact with ...

Aug 22 - Sun (1941)

1941

Route 100 to R. Valley rd

[N35E, 20SE - road - 200m from road to
R. Valley rd - see Tower Rd]

CU - Road - 200m - road - 200m from road
Road N40E 28SE

37 Top of hill N64E, 37SE

15 - 129 N6E, 27SE

27 On the road at Ed-May, N55E 30SE

55 Ed-May N60E, 16SE

61 change fold N55E, 30SE (cont) - on
road - 100m from road - 100m from road
- after road - after road - 100m from road
fold

2.02 - hill heavy rd. cut at 25-10
400m from road

- N40E, 32SE - breaking on road 200m from
road - 200m from road

- N55E 30SE - road - 100m from road - 100m from road
fold - 100m from road - 100m from road

Spring 5E 50m - 30m from road - 30m from road
100m from road - 100m from road

Top of hill - 15m from road - 15m from road
- 51m from road - 51m from road

N5E, 39SE - W pt 59W of house - 52SE
- 51m from road - 51m from road
- 51m from road - 51m from road

.81 - Take another rd to SE (ypl. house)
N83E, 60N - St R at pt S 25E ypl house
|||||

N70E, 17±SE = St. R. - ± same elev. as
last - at pt S 65E 7 ypl. house

Run of moc SSE of ypl house + SSEW
of another house - moc. = N78E, 15SW

+ then blue to
N45E/68SE - reddish Ed May 2
sh. 0.5 mi from paved rd. in
spring zone - between paved rd
+ church - looks like moc! [x]

N73E, 69SE - 125' above rd jet = be
sh. with calc. vein - this line NW
of 3rd spring - mostly all St. R.

- rd jet to ch = .08

Aug. 25 - Mon

2170 (920) - rd. at school SE of BK

- N40E, 54SE, "Onik" with Mr

at pit - 2415 - 2420 - opened 30-35 y.
ago in search of Fe.

- at contact Onik + Dbs? - see sample

- 20' bed - 5' deep across strike

- 7' deep - in 4' - last 3

slate - hole 4' long - all
± slumped.

- 2" trench \pm 11 to lat - same length
- a cone ridge - top 2410 (10 AM)
- both Therman. gnt land (close to B. L. Janna land) - Thayer her mine right on gnt land
- 20' beyond lat - some mine ore but all very sandy - some has good weight

N40E 15SE - ? crop ✓
2330' (10:10)

Sugar Grove Sch - Ed - may exp. not more than 170' from St. River - sh. are N85W 40N ✓

Crest of Potts Mt. on old rd - SE of Laurel Pass - Amer. 3463 (3:45) - only ss. & float in gaps & some distance beyond (SE)

218

- Clinton (red) ~~to~~ N61E, 57SE - can be ~~to note~~ ? 3450 (3:50) - then in green sh. & other types in. float on crop - certainly must be Clinton

N153E 59SE - good red Clinton
3415 (4 PM)

N53E, 52SE - red shaly ss - Clinton
W turn to R - 3405 (4:05)

$$\begin{array}{r}
 495 \\
 26 \\
 \hline
 2970 \\
 990 \\
 \hline
 1287
 \end{array}
 \qquad
 \begin{array}{r}
 3405 \\
 3340 \\
 \hline
 65
 \end{array}$$

$$\begin{array}{r}
 3405 \\
 3285 \\
 \hline
 120
 \end{array}$$

N60E, 40SE - red + gray ss. = JWH.
3340 (4:10)

N60E, 35SE - chn - 3330 (4:25)

30
120
N60E, 40SE - red & gray ss. = Jun.
3340 (4:10)

N60E, 35SE - Jun - 3330 (4:15)

N60E, 52SE - " 3285 (4:20) - + 1
crop area just beyond
3215 (4:25) - yellow flint - probably on
Ed.-Mays - pace to car - 495
- elev. 3085 (4:30) - car. 65 mi from
Buck Valley rd. - across or Rd
2770 (4:45)

.45 mi SW of Linn Rn X - 1700 on NW

Aug. 26 - Tues.

934 Bland St.
To Green Garage in Bluefield & talked with
W.W. Green, brother to H.B. Green (latter
more active in min. work) - Miller Min
Mining Co. now owned by Green
Garage (two also mentioned Green)
H.D. Decker & J.W. Helvey (part partners)
- bought Miller property 3-4 yrs. ago
& have operated ± continuously since
- operations have more or less paid way
& have pd. off ± half of cost of
property
I am having water trouble at Miller
mine - laid 1200' pipe line from
mt. "spring" where they went by

[Chas. Bond now paying \$100 per load
for trucking dirt - up from 100 to 150
thinks it will go higher]

~~Went to ...~~

- " " " Wash. Opt. Bldg. & ...
- visited Holly Brook - Chas. in N.Y. - saw
Chas. (Chas. Chas. now activity in
side room - discuss 500 per mo from
Amer Zinc & has become interested
in deposits near Stanton, etc) - are
working on washer - have put in new
logs - on to rock - close - to
move in Bank Bank table.

Aug 25 - Thru

To David McDonald, 248 ...
1st Lister, present owner (Hagwood right)
1st owner below St. R. L. number - 1560/8⁴⁰

219

- up out to 1800 (2nd) - proposed for ...
... - ... - ... - ...
... - ... - 1939 - 18" bench - ...
... - ... - 11' ...
... - ... - ... - ...
... - ... - ... - ...
... - ... - ... - ...
... - ... - ... - ...
... - ... - ... - ...

- claim to have dug out close to 1000 lb of ore of varying quality - see sampler
- some of sandy piece of ore look coarse enough to be Oriskany.
- dug small pit in bank on L side of above branch - in clay, sand & sandy clay showing good bedding N82E, 32N (whole bank however may be striated) - note pink iron gritty clay - well laminated - looks like Tonoloway - there was ± continuous 1" bed ore in pit - clay bank 10' high here so above that might be Oriskany in place over clay - bank is 10' high

220

1825 (9:50) - ^{base of} - crisp heavy Clinton ss in Lth branch - 15' exp. - apparently in little fold in Clinton here - with ore in overlying Ton? - ss has N60E, 30NW

- Pt. N22E of old iron pit N. Pt. BK - 1920 (10:05) - ore 150' ± from prospect

- 1935 (10:12) - N24E, main pit = crest of plateau - Clinton black

- 1900 feet look like DO but no good ore

- 1840 (10:30) N55W, 5NE - Clinton ledge fair crop - very steep slope to S. 7

N45E, 37 NW - Dbs - 2620 (11:10)

P. DA
0 - E -

21 - S35E

60 - N70E

95 - S30E

154 - S50E

450 - rd. W pt. 1.78 mi from St. Rk washer

ls on low Ed-Mg N70E, 40SE - in cut just
beyond fork to fault Spgr on Singer Green Fault

2320 (1:55) contact of Moc. & E-M N25W of car
good section exposed here of upper pt.

St. Rk, complete moc. & lower E-M. -

boundary between Moc. & E-M difficult to
draw because of ls. in ch. - Singer Green
Fault here has unimbed. N of rd - between

E-M on S + St. R. on N. - then apparently
in road for all of E-M between here +
Jun of Little Mt. - Moc N47E, 53NW

* Back valley
near alt. here

2 N70E, 40NW - Moc (red) below - 2305
- sheet or ch. plane ls N60E, 55NW

2260 (2:10) - stone Rk - Moc. contact

Rd 2250 (2:15) - .65 mi from point road
on left rd up Back Valley

← .07 mi NE state Line

- Sugar Grove School - there is no fault
at spring as mapped of Co. rept. - the
Mec. comes in just below spring
(in R. bl. Run between Sch. site & spg)
N60E, 70NW

- farther down stream red Mec. here
N75E, 74S

- still farther - close to house are
local Ed. May-lss. N74E, 65N

.3 mi SW Sugar Grove Sch. - contact of Mec
& Ed - May - Saline road across creek to N
N35E, 45NW ✓

- N50E, 53NW - St. River N. bl. creek - .64

1.38 rd to L.

1.41 " " L (= one on map §)

1.48 cove by creek - on R

1.71 turn L - up to house ± 5 mi to SE

but no cove - E-M bank near house

Aug. 29 ~ Fri.

Return to big spring SE Paint Bank.

Section 540E - N40W down L bl. spring branch
from church to jet with paved rd
o - church

58 - St. River? - dark gray ls. sh. with calc. veins

N75E st high (70) to NW + 60 to SE

- then appears to be actual axis of fold



94 - reddish shaly ls - Moc. - N65E, ϕ & 71SE
103 - gray ls. - probably still Moc. N75E ϕ & 70SE
110 - " " thin & shaly, deformed N75E, 70SE

P=2.5

- 94 - reddish shaly ls - Moc. - N65E, 8 x 71SE
- 103 - gray ls. - probably still Moc. N75E, 8 x 70SE
- 110 - " " thin + shaly, deformed - N75E, 70SE
- probably lower part of Ed-May - yellow sh. from bottom crops
- 146 - coarsely xl, highly for. ls of Ed-May N74E, 70SE
- 188 - rd. jct
- there is no fault there here - Moc. is on end - slightly overturned - + is belt very thin - springs apparently issue close to axis of a large fold
- pt. N28W of car + N58E of church - red Moc. N72E, 50±N
- overlain by St. R. section between here + car. - exp. moc belt about 160' feet wide [2985 (9:35)] - may be considerably wider
- 2895 - between ^{above} Moc. + car - St. R. N81E 8 - var
- probably close to fold axis
- car 2880 (950) .47 mi from paved rd.
- N70E 65NW - St. R. near top (Moc not exp)
pt. N40W car 400 - car at 1.7 mi (1.58 = rd to R)

see map 2330

- N74E, 10S - red moc. on hill S45E of house at end along Rd to R - near here overlain St. R. (see N71E other house) 2325 (HAM)
- N55E, 15SE - red Moc on hill N 68E of house
- N23E, 24SE - " " " " N 52E " 10

2365 (10:15) - about 600' from house

- N45E, 21SE - 84.0° - see map 2330

- .62 look for fish turn L = 0.0

- 11 Knox crin + chert block with Solocasts

- N45E, 21SE - St. Riv - see map 2330

- .62 back from fork turn L = 0.0

- 11 Knox cup + chert floor with dolocasts
N43E, 21NW

see map
2330

- N52E, 11SE - St. Riv - across axis (-pt. N30W
Potts Mt. tower) - for + chert 150' S of rd

- N46E, 50NW - red + grey moc. 2 mi
SE of fork to spring on R side paved rd

- cor at .45 - N40W 520' = red moc N72E, 51NW

- 40' - St. Riv N72E, 86NW

- N55W of house .88 mi from fork to spring
- on R at elev. 2295' = Red Moc. N65E, 27NW
(315' above gully)

- N75E, 69NW - St. R. - for + black ch. - 2250'

- 2095' gully close to rd

- 2115' rd.

measured S40E from St. R. to Edmng - latter on
rd at 0.60 mi

0 = St. R. N25E, 25NW - 2240

331' = sh. in rd gully N55E, 30 ± NW 2250'

2260 - base red moc. - 33 p. beyond

2368
170

SHOE →

SHUE →

2340 -

2265 -

2240 -

331' →

Sept. 2 - Tues. - Back Valley

1040E, 43NW - 54° ^{100' L} _{SE} with Back valley
at. at pt. 13 - no - probably close to Moe
cont. on here - ^{small} creek sink hole - swampy

1100E - 1170E 55NW - 55° edge bog
sink in Back valley - 100' up to
SW of Sugar Co. hill the 1100E 2 mi
SW of Park

- 0.39 - 1.35 - Back valley - trail from
0.39 - fork into R. river in ~~valley~~
~~at maps~~ further branch extends toward R. H. Mt.
89 - still E. of 19, still in NW
1.35 - end of lower branch - small + fine dr. (Cott
Pond) 9 E-M

221

- 1.7 mi S. of 7 mi Dr. - turn L. to
old road

.03 1102E, 44SE Dbs in Cr. + Rbk

- 0.1 - Turn R
 0.32 " L
 0.78 - crown branch - flow to R
 Dbs N60 E, 13 NW - gray ph. +
 hard ss.
 .80 fork continue SE ahead (=L)
 .85 blocked
 back to .80 - to R -
 1.11 X cr. flowing N55W = Dbs N65E
27 NW
 - 1.35 X cr. to R - N42E, 13 NW - Dbs
 - 1.46 N40E, 48 NW - turn round - "

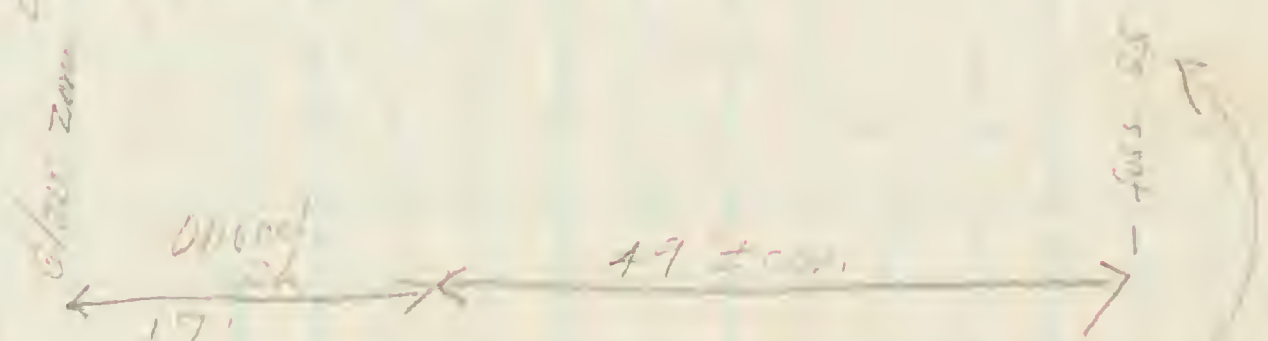
Sept. 3 - Wed

With Edw. E. Rohm stop to see section SE
 Paint Bank on highway. Rohm says Woodward
 has identified chert ls. as *Parkerville*
 in age. If this is case how about
 "Oriskany" being Becraft. With consent
 of both chert may be *Edwincrinia*
pacellaformis = shiner chert = Port E.
 + Becraft: If ss = Becraft +
 ls = Port term then is no
 Oriskany in the section

- 583 E of Linton house (on Elm Run) - Der
 Bl. sh. knob 2-035' (11:50)
 - 2160' (12:05) - high pk - no crop -
 ss (clinton?) fl.

- 2145 (12:12) no wind - dark & cloudy
faint, mostly the latter
- 2220 (12:20) Dark all at first
- 2240 (12:25) Dark and foggy at first
- on - road - big drops in water
here & Little Mt.

Group Miller - old net



222

Sept 5 - Fri

- Clear 2540 - clear from App. Dawn
- 3020 - top of Mt. 12:25 - clear
- 2700 - 12:55 - and so clear
- 2500 - 1:10 - (faint) clear with many
delicate

Rd. to Glenview

0.02 old path

23 - Stair Run - the latter - many

0.40 - house

- N86° 2.2 N - 170° E Glenary - across branch
prob. gray Moc

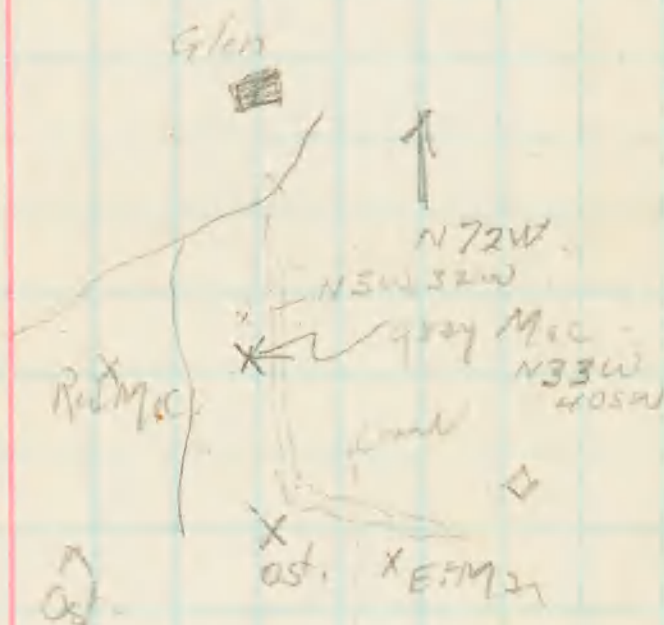
- N37° E, 37° SE - Ed-M soft yellow sh +
clay - in ridge S78° E of Glenary + S70° W of
calf on ridge - the apparently part of
main E-M belt.

223

- ungn. ls. filled with ostracodes - probably
~~base of E-M (Trinton)~~ ^{Moccasin} - S84° E of Glenary near
crest of ridge N30° E, 21° SE

- N48° E, 27° SE - same ostracode bed at pt.
S70° E of Glen. - clay - sec. ridge - some beds
imbed below lam. + mod cracks; other sandy
with small pebbles - These belong in gray Moc.

- Red. Moc. S72° E Glen + N73° E of High Head
N65° E, 17° SE (nearby 1/4 mi
from Glen)



Moc. belt appears to
be only 130' wide here
+ red phase is very
poorly developed [prob
under "forward Glen"]

St. Rm[?] Vanghoush S74° E of Glen

N33W, 40SW - gray Moc. S75° E of Glen

N3W, 32W - " S80° E " "

N16W, 45SW - red Moc. N63° E " - 240 ft
in gully - to branch of Glen

-160 p. toward Cedar - house. Rd. area of road
- 240 p. " " - drawer of house

Sept. 6 - Sat

Area 1865 (McCaleb house - on rd. 8A)

W. W. Becker land (see map - sketched from
C. P. Barnett blueprint) - total 210
acres - pit opened 1939 - 2 G.A. Patton
for Thayer - elev 1800' on rd. at
pt. 1.02 from water.

~~N55E S.W. 2100 (8'30") - Clinton~~
~~fill in~~ - heavy beds ss. - saw only
Clinton first on way up on N55W
of car

High point N85W of pt. where pit to be
tunnel to pt. 1.02 - 2220 (8'50") -
all Clinton on N55E - (see map pit)

~~N55E, 5'30"~~ heavy layers to
junction of road - 2265 (9'10")
- about 100 ft. toward Oak Brook
- little very much like "Bristling" but
no good for - found after fair search

* Area 1790 - rd. 10'5" (down rd. 2 hr.)

- Road - Poth Cr. SSW of Yellow house near
Oak Brook = Dbs. N55E. 8' - 10' - 11' - 12' - 13' - 14' - 15' - 16'

223a - ls. encountered on west abutment
of bridge at Point Bah = Tom or Der?

Sept. 9 - Tues.

224 ✓ Clinch Mt. - conducted to "prospect"
by Eliza Mc David - in basal
red Clinton just over Clinch
- on crest of mt - ferrug. - ^{N55E}_{28NW}
- no m. - mt. synclinal
- Clinch exp. lower on NW.
- Clinch + Clinton alternate
on crest - most of Clinton
red - ostracodes (smooth)
in white iron stained med-gr
ss at one pt - climbed
mt over St. R. - K7a - E-M
- did not see T. on - at
"prospect" not even good Mn
stain (what of claim that
from M. ship jet?) - Clinch mt. synclinal
- Clinch up bed on NW. - one enclosed Don to SW of
on a David place

224a ✓

Sept 10 - Wed.

In far and strange - ferrug. mt some
good Mn

- Ba. content oil field water West of
W. Va. Survey (within last 1-2 yrs)
- AdPG - see this to answer day -
sentinel organ

- at one dead case of replacement - e.g.
when there are more sand grains on

(over) 17

Ruth Branch prospect lying
(acc. Stange man) 250' above
(beyond) Tom spring + it level 75'
higher - pit exposed following -
0-3' - DB - little mn., soft
3-6' - " - harder, impreg. with Mn.
6' - Tom - soft lam. clay

light side. There are some side - ramifying
veins in upper pit near 3033
are probably all replacement acc. Mn.
- too much iron in many
parts of some beds -

light side. There is more side - summary
want on an upper part, near 3033
are probably all replacement acc. (Muir)
- too much work in many
parts of upper part -

- can operate Mr. more successfully on
1-15 rates, some cases see H. H. H.

- chest pneumonia at museum was
is. - in eye - chest found

2 hour for 5 hour

All p² 200 to 250

1-10 rates (1-8 at the lower end)

300,000 - 400 - 500 - 600 - 700 - 800 - 900 - 1,000

120,000 - 150,000 - 200,000 - 250,000 - 300,000

5,000 - 10,000 (Museum + Chicago) - 10,000

Refth (Liber 1000 Mr. Manning Co. 10,000) RFD 2

38.50 ± 7 Two cases may - 1000 }
40.00 3 } later
- all then mill

outings on road up to higher mountain - 1000
- apply marks, etc. - 1000 in 1000 (upper)
- with poor observation in 1000 - 1000 in
various, laminated, some of them
are bright green - 1000 sample

- some are good, other light, dull, &
probably high in silica - nodules
in clay - clay red & green &
not as well lamin. as Tons - say
that plates on up hill are poorer.

Cranford, D.C. (owner of Cranford
& Mather) - Lifter & mfg.

Morning got in Cranford with Tom
Kendall - mfg. dept. - saw
pink & green clay as Lifter & saw
light wt. nodular ore

Sept 11 - Thru Boyd Worker
- 1 ton out of 2 trucks - to back factory (4/15)
- 2 1/2 loads in two cars
- 6 cars loaded, one of new product

- car exp. 1st & 4th other way
- on 3rd exp. car
- 1-10th shift

Car analysis (ordinary 2 1/2 ph. per ton)

46.79	} full clay - ore
44.25	
44.41	
45.45	

- 7 cars W.M. (41-42%)
- 2 " B. of E.M. ore 35 + M.H.

- Tailings - 3 can to Allen Woods Steel Co.
in Pa. (19 + Mn?) - 4⁰⁰ - 4²⁰

- Boyd getting good gravity separation in
main battery of jig but a lot of light
pyrolusite is going into tailings - took
sample of this - Mues suggests giving
it to Richmond - low jig giving
very good separation - descent from
this jig goes on black powder to
darken up tailings -

Took sampler strobilites & strobilomites?
material from picking belt.

~~Plot - measure pits in each Rd~~

Visited Gurner washer pit - washer moved
- remaining ore very poor - very high silica

- falls at East mine due to settling
of newly formed clay between horses
of ls (i.e. pinnacles) - Mn has come
in irregularly but in general follows
lens (some pyrolusite) - see red mat.
- all. lam. with = Ton. - spec. includes
ostracodes in ss. from Clinton crops.

227 - boulder siliceous Ton [?] in pit East
mine - see spec. - needs study
- this just below Clinton Cr.
- also some deposits + corals

* 225
(miser
has
spec)

226

on surface - see coal coll. by HDM +
 of Flat Top - this mine area
 largely Tan

- 200 ft out of pit 200' ± beyond
 center boundary - at least 25' on
 in the pit - but not reached bottom

- excavated beneath & worked in sandy
 matrix at depth 20' ± below ground
 surface - see sampler - this is
 cavern filling of sorts?

- wall of pit shows Tan clay
 above below zone 1' ± thick showing
 a distinct laminated structure
 - sharp irregular up to 3" in diameter
 - this zone cut by minute fault &
 slickensided - but 10-12' below
 original ground surface - a deposit
 in a cave on top?



228

(miser
 has all
 spec)

- not to
 Brown

see Gallagher
 photo

2 12' hole to E - East Main
all in bucket

- pit to SW 7 large rocks
- all in E to 30 all (old)
- bucket only when work
- 2 holes of 14 ft in present pit
showed on to 10-12'

Sept. 12 - Fri. Boyd Stephenson

Down 53' - primary material - none
on available (it's gone in 1918)
- Stone has now gone - now about
to 10' or so on bottom under



21' hole ^{WATER} - water
nearby - water

- old shaft or trench - but it's below on
old road

- small piece of rock are scattered on
down pit usually for near bottom

229

- Main - have with Tom Lister for NW
(3-4000 worth for source)

- all ore from this prospect was hand
picked & bagged - mostly pyroclastic
- road in for 16 p. beyond pit
with Do at depth of 2' 6"



□ Ton

pit lying N 73 W
of drift - exposes
SS N 20 E, 68 W - pit
10' deep

□ Ton

□ 11' pit with
vein at bottom - 1" ± thick
N 45 E, 65 NW - vein of
ferrug. mat. (min lower?)

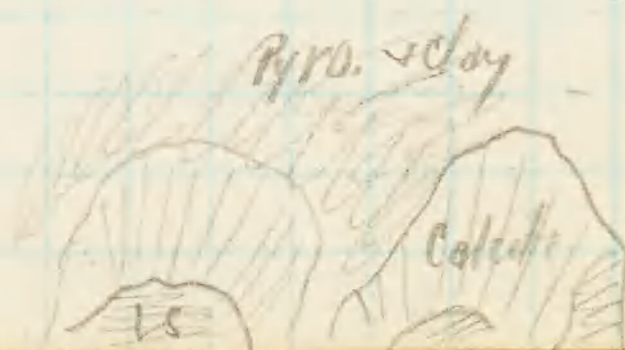
- examined large shelf put down 2 p
down recent deep shelf - 6' ± thick, 15' ± deep
- Ton. ls. & clay N 10 E, 4 ± var. - soft pyroclastic
on W side between masses of hard ls. - all
veins very thin & all mat. very powdery.

- at the main shelf the weathered zone ends &
abruptly & solid ls. fills fissure - open
for only 10-15' along strike

- open pit adjacent to main pit shows
relationship and below

- Cave?

230
main hor
all spec.



1) dep. ls. & Sol. to form cone
2) dep. of caliche to partially
fill can.
3) dep. clay & pyro.

"Shenandoah One Co" property, Bath Co., Va.

W. G. Hoover - Warren Spay

C. Shreve - Marlinton

analysis sent to - Shreve

mm 59.9

mm 0.2 94.69

mm 0 77.34

} By Shreve

231

Site One 3 - Shreve, with mm
(flat) - no record for 16?
The first record for 16?
+ Record

231a

Site One 2 - Shreve, Project - for - but
no record uncertain

mm 47.56 - Two 1/2 inch 1/2 inch 1/2 inch
mm 100 mm 100 mm 100



examined both Meadows from 1901 - 1902
- the one is but the from
taken. This is very a paper
- West of Beach Brook Run

Sept 13 ~ Sat

231/26

232

232a

Reexamined Anthony Creek section with
Mason. This section is badly deformed
by folding + faulting (see Mason
sketch). Units involved are Dbs -
Don - Db - Ton - Clinton (Keuper). At NW
end Dls. is found near bridge (at
ab. 1 mi from above) - Db + Don +
Dls to big belt Ton (670' wide) - then
small fault - then Keuper arch -
bigger fault + long covered interval
then Clinton with rock Lagerstätten
fauna in ss. Then covered then
more Clinton ss. dipping under
Ton of quarry. - lower part of ss.
section Ton, upper pt. maybe Keuper

Visited Waggoner mine + nearby pits
- someone has gathered good ore + piled
in dump 5' across next to false opening
that we opened in July. - but ore now
to be seen here!

Sept 15 ~ Mon

233

Spruce Run Mt.

William Wright + Mason own mine
right - leased by Nitro. - have opened
36' trench into bank - show 4' face
of ore at end - in clay - some

Some shipped during last war -
washer below - Hiner + Britton
came in 5 ± yrs. ago - uncount

12' face - took out several cars -
friction - did not pay labor - attached
on -

- Sept 12 - car shipped from Morris
- worked + gassed 1 stange
- at 9-1 ratio - to Larrie Lyndley.
- 12-15 tons shipped to Larrie
month or so ago.

234

- near Stella Rodenhizer property
some 200 yds. to west + 150' feet
higher - ferry met with very
little man. McD. Hunter +
Hebert are partners + have mine
right - built 15 yds. high + 6' high
at mt. end - removed 5-6 yrs
ago by Mason Long.

- examined old stack pile of less than 1
car in valley below

- 4-6 cars reptd. shipped last war
(2 cars at much earlier date?)

235

App. Apr - Mr. filling dolomite - stackpile
- 10 cars washed during Aug - gradually
shipped
(over)

In discussing origin of ore at Meyer mine -
date of fm. of chert
" " fracturing ?

- Dep. of Kng - or ls. - mg. ls. or dol. ?
- fracturing - close of P_2 - not fracture
- fm. of chert by weathering (or earlier, prior to fracturing) - fm. of residual clay from dol. ?
- entrance of Mn. solution to cement broken chert - replace (mol. & mol.) pte of chert & clay, fill dolocasts in chert

Sept. 16 ~ Tuesday
Sections to be measured

chert & clay, full of debris in chert

Sept 16 - Tuesday

Sections to be measured

- 1) East of Gap Mills
- from top of hill at foot edge of line of sink-holes
St. Ann R. & Mocc. to top last ledge
which is depression occupied by Ed. May sch.
- 2) Gap Mills
- from NW corner of hill - gap - to top -
Clinton - Clinch - to Summit
- 3) SW of East School - from edge of hill at foot
- across St. Ann to top of Clinch & Mocc. crops
- 4) Henry farm - from Ed. May across Mocc.
to St. Ann near base
- 5) a) SE of East Bank - from Dbs. across "Barnyard"
+ beyond to top of
b) from Clinton across Clinch to Summit
c) Little Mt. - from Clinton across Clinch + Summit
to Ed. May
7) Sugar Grove Sch. - from Ed. May across Mocc. to St. Ann

road near
 155 ft along foot bridge over Potter Cr.
 below Paint Bank - L bank -
 all Clinton foot - Db, like
 Db in creek, must be nearly
 on end here + ∴ no flat rock
 - actual crop covered by Clinton
 foot?

Sept. 17 ~ Wed.

SW of Laurel Br. where RR cut K.
 old rd - head N 42 W ± to knol.
 Amer. at rd 2130 (1:20)

-top of Db knol 2740 (2:30) - typ
 ferrug. Db but no for. Clinton
 foot (red + white) also present
 - a topog. break between here + mt.
 for L

-heavy Dev bl sh flat to NE of
 creek at elev 2710 (2:40)

Mm	12 % (probably 20%)	Union Carbide want on of this type Q.T.
Al ₂ O ₃	3	
P	.2	
SiO ₂	bal.	
Iron	no diff.	

Note -

Meyer chem analysis gives 34 % Alumina

Sept. 18 - Thurs

To Eld Tox with Miser - picked up
Ben Miner splitter, visited briefly with
Stange, met son of Sinter Mine Miller
who now is with Ohio crowd that
have signed lease with Conley & have
leased Stange washer.

To Boyd mine & examined latent
workings in new pit



Soil and talus

Zone Ton. lam. clay (residual)

sil. "corals" in ore and clay

alternating layers Mn. & sandy mat.

Ton. lam. clay (residual)

covered

In section diagrammed on preceding page the longitudinal masses of feather-weights had occur with convex surface up (or nearly so) - off to be some masses are upside down (fallen in case) - the "coral" masses are mostly lying on side - note central opening in one of them - why many

See Gallagher photo of section to R
This ~~shows~~ a case, ~~though no strobilifer~~
+ only a little more are present -
plant bearing seeds evidently a
third type & apparently much younger
~~than other two~~.

Sept. 19 ~ Fri. - "Back Vally" - to creek Gap Mt
- at pt. .55 mi NW of pt. where Dry Run R.
rd turn V to R [0.5 mi.]
aven. "2535" - 10:30 - get off main vally rd

" -2725" (1050) in heavy Dan floor

-2785" (11 AM) - top " " " Db flood bar

"2795" (1105) - see highly loss, chert consider
- in this Onondaga ^{NB} (note - one good
broch mold in 3 pieces)

"28 25" - "20" ²⁰ apparently out of chert - no good Db in heavy flint - all appears light colored Clinton - no red Clinton

- Keep or some other part of Chapter may hold
up Mr. here - then would check with occurrence 30

- of red Clinton on SE slope
- 3005 (11:40) - white gyp in crest Gyp Mt.
near gap - N40W, 80SW - (ok?)
- 2980^(11:50) - low pt. on crest to SW - all white
gyp in crest - no sign Clinton
red on NW side Gyp Mt. - plenty
of thin flint on SE i. just
before on crest here
- 2950 - heavy typ. ferrug. Db^{stone} in here - with
few below a few feet higher
- * 2935 on rd. (12:30) = up 10' per hr to

- Roxalia - 2550 (1:05) - toward crest Gyp Mt.
- 2690 (1:30) - Don flint & some "buccharit" in
cemented Mn - red Clinton flint
present here in some abundance - all small
- 2750^(1:35) - sandy st. flint still abundant
- 2780 (1:40) N60E, 49SE - Dbs - pt. S 70E ± of
Roxalia (sh. on to d. level, 2805 - (2:30))
- 2895 (1:50) Don flint abundant
- 2930 (1:55) " - may be in place
- 2965 - " - flint - also Mn. ss. buccar
- 3010 (2:00) - on S40E of Roxalia
- 3120 (2:10) crest. Gyp Mt

N85W, 75S clunch - just below crest on SE
clunch holds up mbr. here but red brack

Clinton actually occupies crest to
SW of pt. where trail ~~X~~ - 550' SW

D60 Rosalia - N58E ✓

Sept. 20 ~ Sat. ~ south of Sweet Springs

- Knox - typ. gray sd. with green weathering - evidently
brought up by fold (+ fault?) heading northward for
Sweet Springs. - crop 565E of Baker house + S25W
of gas sta. N58E, 82NW - "2045" (8145)

Section across Knox from pt. 587E of Viola Sch. at half way up hill

1)	0	S40E	"2050"	<u>N50E, 76NW</u>
2)	10	"	}	<u>"</u> ✓ - axis of fold
3)	34	"		<u>N53E, 86SE</u>
4)	50	"		<u>N63E, 45NW</u>
5)	80	"		<u>N50W, 15NE</u> - axis, plunging
6)	100	"	"2055"	<u>N28E, 8SE</u> pt 578E Viola Sch.

- Knox - S31W of Coal gas sta + 585E Viola Sch.
N14E, 22SE - crest of hill

.15 toward Viola from Coal Sta. - St. R. N15SE, 80NW
in creek

N35W of Coal Sta. L. bk. creek N30E, 75W = St. R.

Knox N58E ~~✓~~ - p. behind Viola Sch.
sd. rd. - turn near house to Viola Sch.

135 St. R. - N-S, 10W - ? road

390 Knox N48E, 22SE ✓

$$\begin{array}{r} 485 \\ 260 \\ \hline 2910 \\ 970 \\ \hline 1261 \end{array}$$

$$\begin{array}{r} 135 \\ 260 \\ \hline 410 \\ 290 \\ \hline 351 \end{array}$$

P = 216

1260

426 Knox NSUE, 80SE ✓
 474 " NSOE, 75NW ✓
 485 " NS3E ✓
 772 - Viola Sol

P = 216

1265

426 Know N50E, 80SE ✓
474 " N50E, 75NW ✓
485 " N53E ✓
772 - Vida Sch

- Glenshaw rd - poor exp. - .18 = /na? .20
- St. R.

? 2.
N10E, 10E - St. R.

Mar? - gray - N60E L - behind Dunham
(300 ft. on L)
35 - began St. R. - below Macdonald

Sept 22 - Round Mt. Area - Revisit Core Creek
section again - Summit appears to
come in downstream from west clined
outcrop - red glassy ghylls with green
stain - though I can't find no good
crop or exact boundary

Left bank core ^{upstream} from St. R. good view & fault
0 -
48 ft red more in place?
55 " began Ed. may get st. fault
75 " Ed. may from st. fault
145 " bridge

Mr. Stamp estimates 10-15 cars
of goods are left on property
- has rented workers & shovel to
shovel around for \$1000 per. car (with
percentage of buying shovel) - must
in addition pay \$1 per ton for
percentage of using waste area



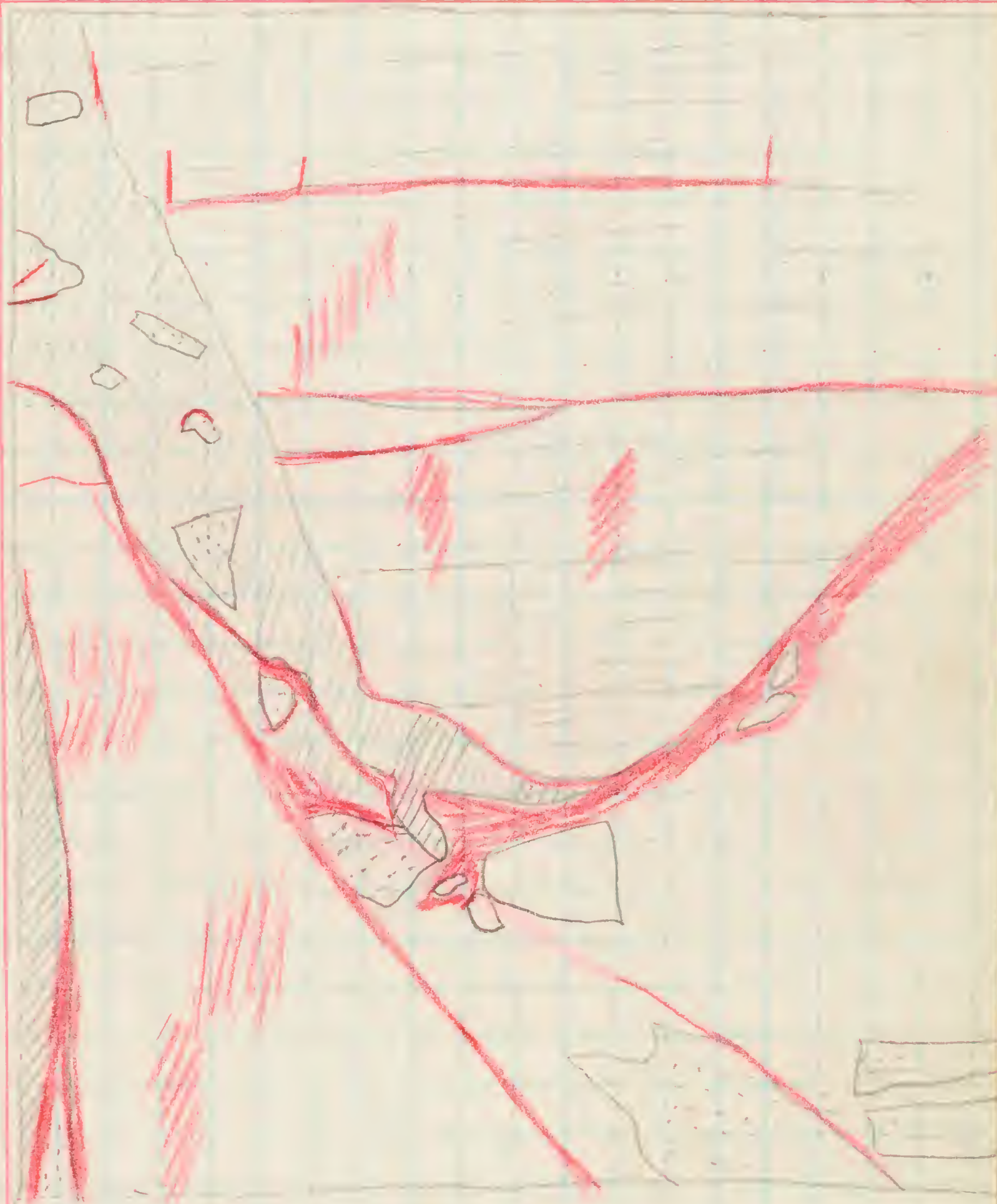
N. end of range -
near Marcum

□ ss

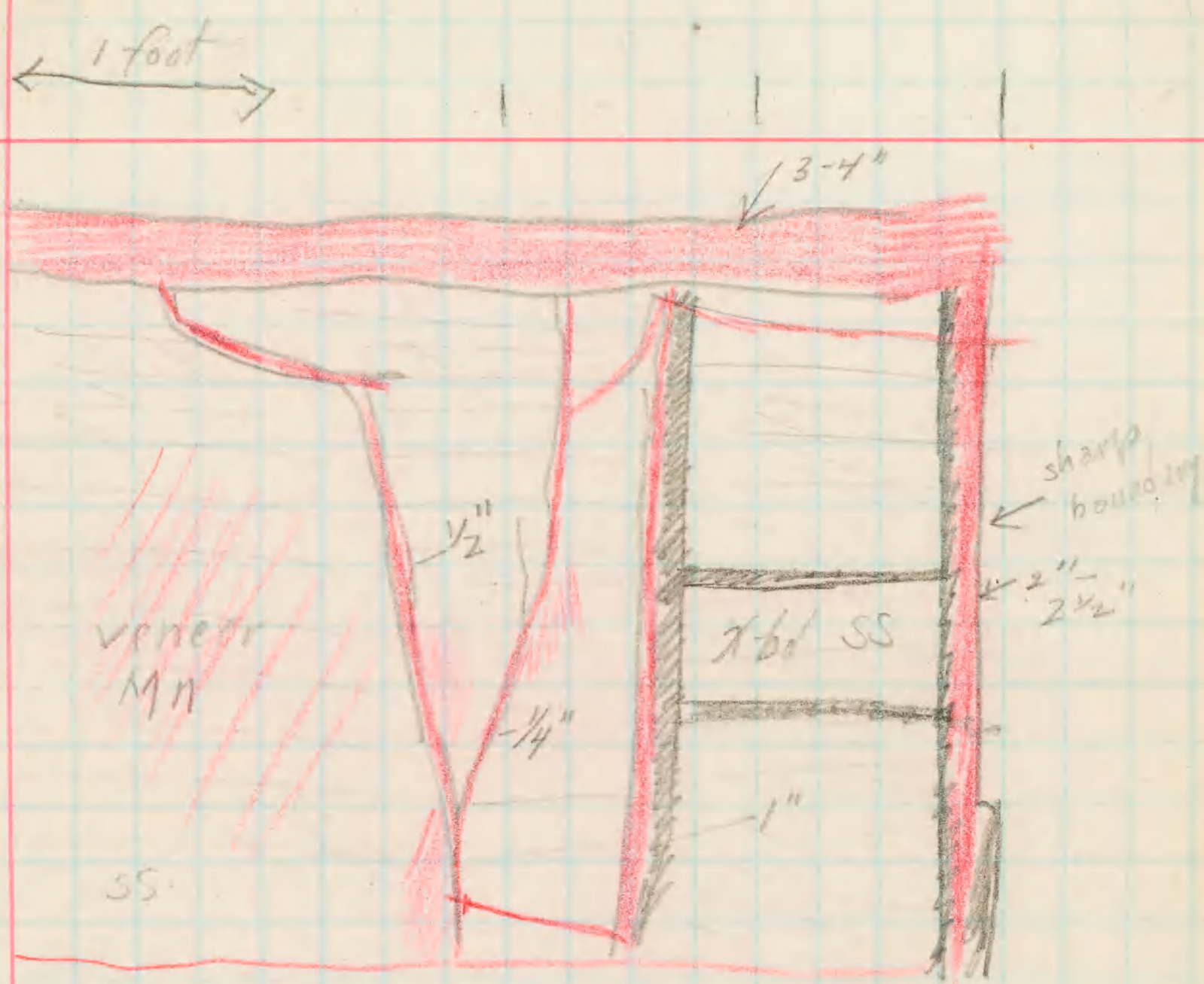
■ Mn.

▨ red clay

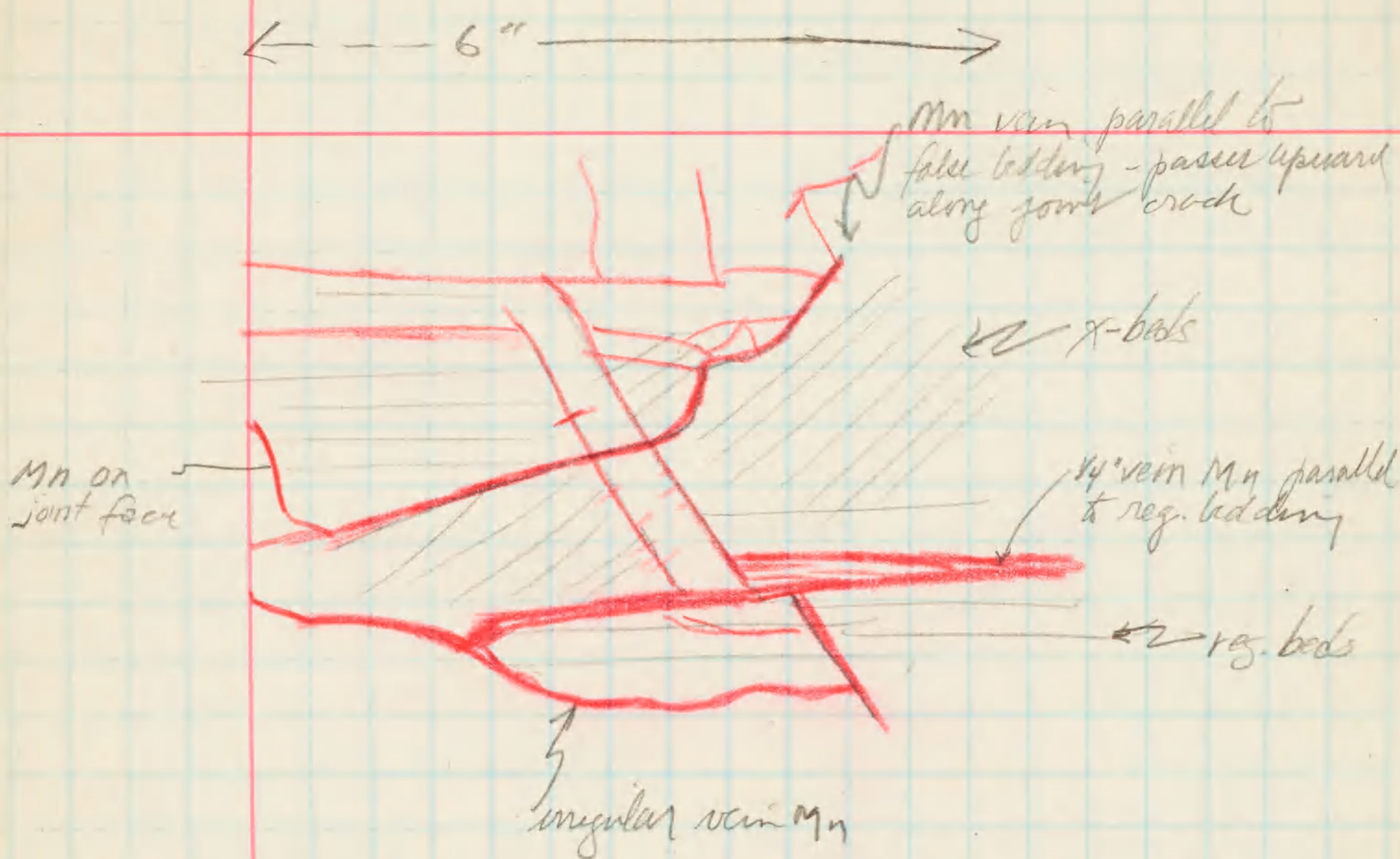
✓ Mn
on
joint
face



Note: Mn. oxides occur:
 1) along bedding planes
 2) " nearly \perp joint faces - various directions
 3) in the oblique crevices with red clay
 4) matrix around ss 35

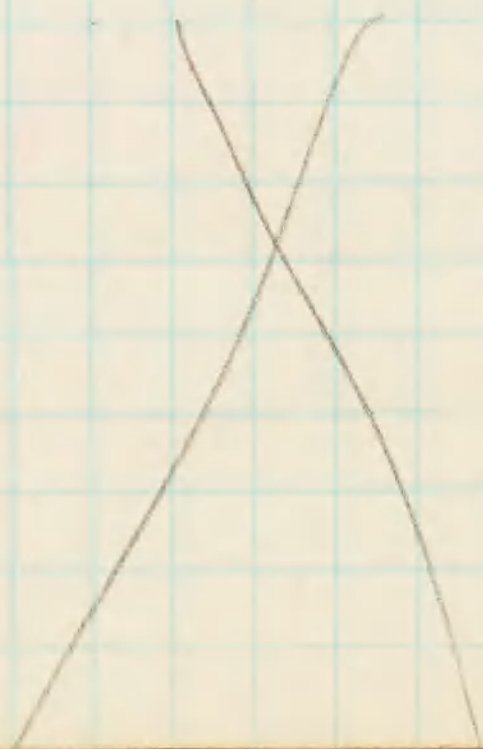


- 239 - showing 2 veins high grade (239) in
 veins // to bedding and joint faces
 - red clay in same and similar fractures
 - NE end of Stange's - on S wall



240 Detail - N end Stange

Center of vein appear to be solid ore
 that merges on each side into impregnated
 ss. Boundaries between ss. + ^{Mn₂O₃} rock are
 fairly sharp. In some places there is
 a border zone of goad ore



Sept 23 - Tues - Flat Top Mt - Branch Mt. Area
Arr. 2970 (9:35) top Branch Mt

- N53E, 40SE - Clinch on crest 10:00
at pt. 1 mi + from rd X

- N70E, 37SE - Clinch on crest 10:08
3000 - S15E of Tower

- S17E of Tower - Clinch on crest 10:18
N43E, 48SE ✓

- S24E of Tower - es. Clinch " " 10:35
N59E, 43SE ✓

- S32E of Tower - crest now broader 10:50
Clinch to L - pt. + Clinton on crest 3010
" N43, 43SE ✓

- S35E of ^{tower} N61E, 45SE - red Clinton on crest 11:10

- S39E of tower Clinch back on crest
N64E, 45SE ✓

S42E of tower - Clinton back on crest

S50E, N66E, 30SE, Clinch " " "

S55E, N67E, 41SE ✓ " "

242

N30E, 64SE - 3205' on crest (12:25)
- Db ?

243

- Don 3195 12:40 - down crest
N83W, 85S = bddy or shikhera
- many evk chert lapped at high
to SE

N77W
40SW

✓ { N78W 43S - ltr ok ± - are N58E of tower
N80W 39S - Don - good exp
- crest 4 to SE - 12:50 - has
chert flat line to crest
3210 (1/8 mi or beyond high pt ?)
(are N28W of less Pigeon flat etc)
Pine from ch. line 100 yd E of "

- Db N15W, 12W - 300' ± beyond last
read. Don - cliff on SE side - with
chert on crest - X-bedded typ. Db
- at least 35' Db exp

Db N-S, 20W - 100' ± beyond last
are S60E of tower - Db cliff from
by scarp - back slope toward
Dissect

Don in a crest just beyond N80E
65N (?) ?

3270 (11:20) still Don flow

S64E of tower - high pt - can

see recent sheet & Brown. Kent
Loyed - D6 outcrop - 3325 (1:25)
N 35W, 28EW 3360 (50)

3380' (1:40) - Clinton ss. fossil with
ostracods - L-banded, fine gr.
like last "D6" in many
respects

3700 (2:13) top Brown Kent
- on Clinton sand

Sept 26

- Fri

Meyer Hole #1 down 75' & still
in clay with some ore. Ore
casing now to 56'

244

Glauconite zone at Traynham prospect in exp.
at far end of T trench & just under 100
is there also exp. chert & probably represents
upper glauconite zone - in not well developed zone
in 4' above base of trench.

245

better than average ore - from T trench

246

suitable spec including best ore in lower

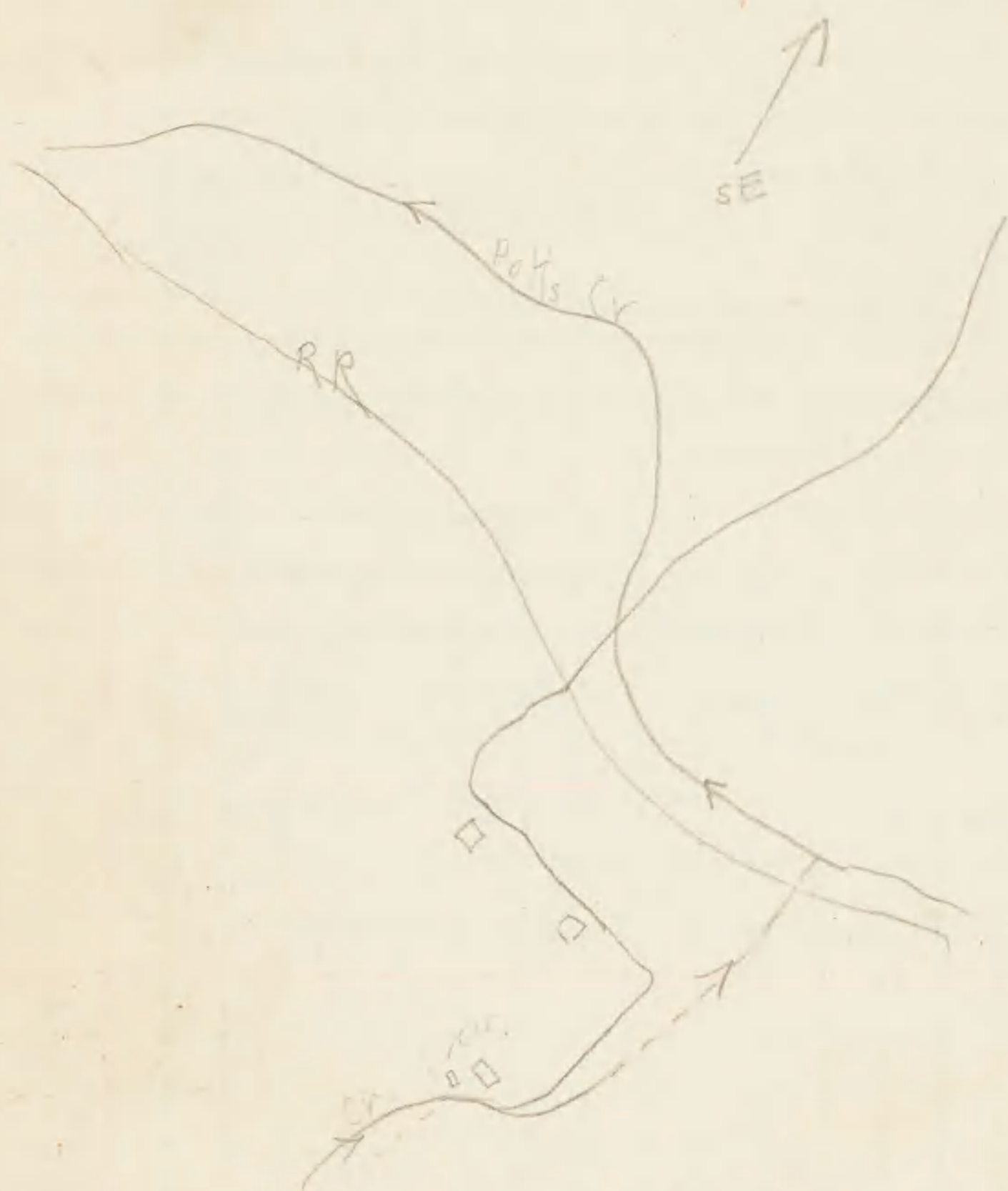
To pt 1.5 mi SW Laurel Br - under 2100 ft. alt -
film in toward Ohio M.

1.58 - old R

1.62 - house on R } on old road

1.84 -

1.89 - turn R



(see above)

- N. house on creek, 2.14 - elev 2330 (11:30)
- 2460 (11:40) N8W of house - Duv Bl. sh.
- folded - st - N75E



(sanctuary)

247

- at house on creek, 2.14 - elev 2330 (11:30)
- 2460 (11:45) N8W of house - S.W. side of hill
flooded - ST-47SE
- up hill - low hill at foot of hill - low hill
flooded - Clinton only
- 2950 (12:15) Clinton and N5E, 34E
- down hill - up river - N5E, 34E
- down gully SNE - into low hills
flood 2660 (12:35) - big creek - stream
min. stream
- Db. injury with Mn. & F₂ - former
flooded - elev. in gully 2595
(12:50) - N5E, 34E
- + 2345 (1 PM) - can = (up 15' - 1 1/2 hr)

Ira Bell - 4000 area with Clinton
Robert Bell - got some out to N10
- low of tops of flood

N5SE, 31SE - Db - 2225 (1:45)
gully SW of stream

N47E, 4 steep to SE - on creek
2590 (2 PM)

N52E, 27SE / Db on creek - 2635 (2:10)

248

N70E, 34SE Db - with Mn - like Trough
- prepared - 1/2 day pits - latter side
branch - very hard - some back for 41

- claim high grade in back of - not
check? - occ. identical with
Trayham same here as latter

N45E 25SE Dbs - near with Grand
2240 (3:20) - pt 452E - of red
to SE of Hugley - just above
red rd.

+ 2045 (3:40) (approx 4 1/2 mi) - red

Sept. 27 - Sat

To pt 1.35 below creek for the pond Gap with
red 515E to hill - then left to road N 57SE
most with no crop - all is a small C in
Quadrant Church

- N45E 30SE - E from hill (left) slope of hill
2250 (3:40)

- N57E 30SE - 1750 of Hill St. 4 - 11 mi. in
St. R. - noted in low draw - same also in last

N45E 55SE Knox - var. = "2090" (7:50)
+ = 2490 on rd near back road 8:40

Knox N45E 10SE - beyond Bend of road from
in left th. creek

Knox N52E 9SE - 50' above rd 7:55 - var.
+++++

Sept. 29 - Mon.

- visited A.B. Jackson re plan for prospecting
- Meyer mine
- Hole No 1.

- 68' 8" - 75' 2" - chest - little one
on top.

on top.
Hole No. 2 now down 30' - in
good ore-bearing mat.

- Db. N41E, 72SE near Meyer mine
"2365" 10:25

lower end dump of
- from eastern red pit a piece leads N40E -
by chert at pt. 270' from red dump - on to
east heavy keuper floor on fairly steep slope - no chert.

#1 - to rd S72E = 22'6"
to cut = S5E
- to edge house - 36'6" = N/E

2875

II 2 - 20' SE of rd.
82' N42E of corner little shed

Pits

II 2 - 20' SE of rd.
82' N42E of corner L. 11th street

P. 1/2
 hill stake, 50 ft N 61 W = 55'

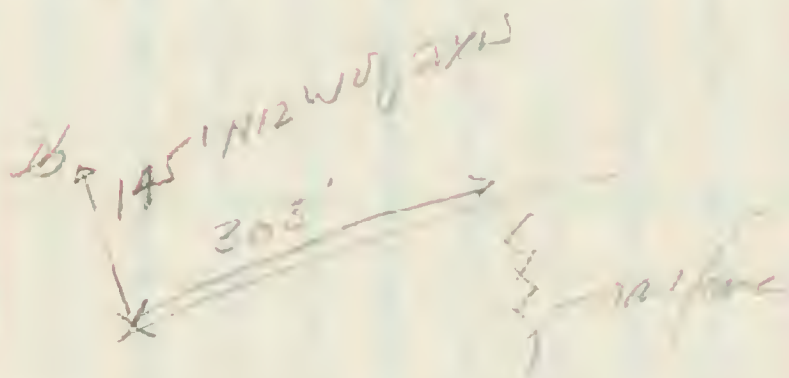
area 2420 at rd #1 - 2 PM

Plot # 2 line 75' SW of #1

- 500' ± beyond road fence on W - at pt
 around N of creek the paper shows - post marks
 50' above pt #1 (= 2635 ± on Gellatly map)

- 275' beyond rd fence just N of creek - paper shows
 - but no more good data

- by more N to W (in stone letter) line



Sept 30 ~ Tues

- Area 58 - 1/2 of area 58 - 1/2 - 1/2 - 1/2

- After 2200 (11:55)

- 2570 under pit 12:05

- 2875 local summit - much D. flat
 coarse gravel forming ss. with crin. 4/4

249

stem molder + one good *Aspidocrinus*
- no chert feet seen there for —
are one east of Morrow now

- 2910 local? high - Don chert in
small piece abundant

- 2990 (1105) - forming or nearly so - Don chert
floor

- 3000 - top - heavy mass of ^{material} probably ~~Don~~
no chert here

- 3050 - 1:35 - Db? - very hard - floor

*

- Correction for upper lower bluff - ~~Don~~
fault near Heller prospect - country with
a prospect + below (NW) is Clinton that
dips under Ton of valley - Brandy Ridge
is capped with Db (only west end crop
of Don found) - ~~Don~~ ^{Don} ~~foot~~ ^{should be}
~~removed~~ - put Db on hill to W of
present Don?

Leftier pits

- lower pit 50' wide x 200 long - depth 0-12',
on floor - ~~concretion~~ ^{concretion} up to 6'
thick + some of largest pieces of them seen
in ~~any~~ ^{any} of this zone (near upper part
of pit) - all but the one is sandy or porous

250

45

& some look like wood & min. altered clay
 - it is contained in a matrix of clay & brown
 sandy soil along with V. blades of common
 (Clinton?) ss. - this zone of clay hardly
 worth working in many parts of the
 pit the tubed upper entirely barren

- Several other pits ^{higher one is} 25' -
 50' in diameter - 15' deep (20' sandy
 pit in center) - upper of these two
 badly slumped

- 25' diameter 5-8' deep - into Clinton
 (former "lower pit") - N 55 E, 25 W = first
 nodules - NE wall of section of
 mottled clay + lam. sandstone, greenish,
 containing nodules of low grade Mn
 - above is 2' sandy soil - no high grade
 ore to be seen - nodules do not
 cover more than 5% of surface

- in mine it is back to face room - rough
 mottled Clinton N 85 E, 52 N = 2nd - pits
 few in valley here.

N 60 W, 8 / SW ^{325'} in Clinton in Morris pit near
 house V - 25' E of house - pit 25' x 100' x 10' deep
 - this pit 25' x 100' x 10' deep
 - show no Mn -

252

- two other pits by road are comparable
in size but more irregular in shape & bottom
of both are filled with water even though
bottom is only a few feet higher
had to shut down washer - in
1 hour pit bottom? again shown -
return to

- on 5th pit natural surface not in
situ - it is level except upper $\frac{2}{3}$ (=10")
- not - base of this part shows variety
of soil with fine bedding - at base are
black hard white clods or - obviously
not a floor - low grade on very
dark - poorer than before - very
similar lithologically - 2 or 3 inches
3+ inches diameter also present
This looks more like recent talus
than like any sort of ancient deposit.

- ss. & green clay are clearly a floor -
not well but show no sign - Talus
valley floor

Oct 30 Thu

"2370" - "2415" (3'12") = up 45' in 2 mi

- 5000 ft of water C. L. L. + in other alluvium
little heavy D's floor - bottom - large
more little ground in other

- 335 E of Sun Hwy chert hill 140' above road

In unconformity just west (base of which lies 50' above Silver Creek) in unmineralized Onondaga (?) section in exposed

- about 10' exposed - also in bed of green sandy clay with flattened nodules of low grade Mn + ferrugineous - fine in the exp - then 10' ± of blocky X-bedded ss. - looks lith. like Db but contains no fm + fresh grains are slightly glauconitic - probably bed to just that in Db - does not look like Clinton in spite of green clay - no structure - nodules are in similar to Clinton & apparently in laminated to clay bed. - ss is well jointed + all joint faces are fractured into Mn dendrites - some very thick - most of them appear to radiate downward

- N75E, 20NW - var. - ss. shows poor

branching

low grade - not seen in place
- near Waverly road + 1/2 mi. hill 135' (25" ±) - pt 312W rd. - on chert hill 140' 137

SHE of Waverly hill 312 as 9, 12 - 15 p. Db
at elev 2500' + very heavy Db flint 1-95' ± above rd)

N60W, 20SW - Db on hill SE of hill 48

253

254

S19W Sec. 6 School -- strike-slip fault or small fold?

Oct. 5 - Sunday - Measured Section

A

- 1) Moc. top of hill N70E, 31SE - gray phase
- 2) " on " N60E, 67SE - "
- interval between here & last
mostly covered - thin feet of
high dip
- 3) St. River - for. ls. N52E, 80SE -
- 4) " " - black cherty ls. N60E, 75SE
- 5) " " - N60E, 20SE - non-cherty, fluted
beds begin 20' beyond - thin
feet of low dip
- 6) " " N60E, 25SE - contact with
cherty Knox - basal beds still fluted
zone

120	- 1-2	
63	- 2-3	Moc.
<hr/> 183		
480	- 3-4	
330	- 4-5	St. R
135	- 5-6	
<hr/> 945		

✓ #B Gap Mills

- 1) base of Clinch N42E, 42SE
- 2) " " Clinton N50E, 41 "
- 3) " " " N60E, 54 " - green shale

B # Clinton - N64E, 75, - covered here
to back

- 4) " " N81W, 57SE - covered here
- 5) " " " N71E, 55SE
- 6) " " " N68E, 58SE
- 7) Base of chert N68E, 58SE
- 8) top of exp. chert " " - Dr
just beyond

255 ✓ #C - near Court School

- 1) St. Rm N71E, 25SE - top of fm? - a
still in 1900 (not sure just beyond)
- rock for 90 ft - fm - [50 ft
S of outcrop (c) are good for
beyond - then certainly St. R. - here
to 61 could be placed in 1900
N60E, 36SE of just back]
- 2) St. R. N60E, 28SE
- 3) " " N50W, 28SW
- 4) " " N38E, 21SE - local zone of
with stylolite zone - covered with
Anas area

人

- ✓

- 

- # G - Parts of

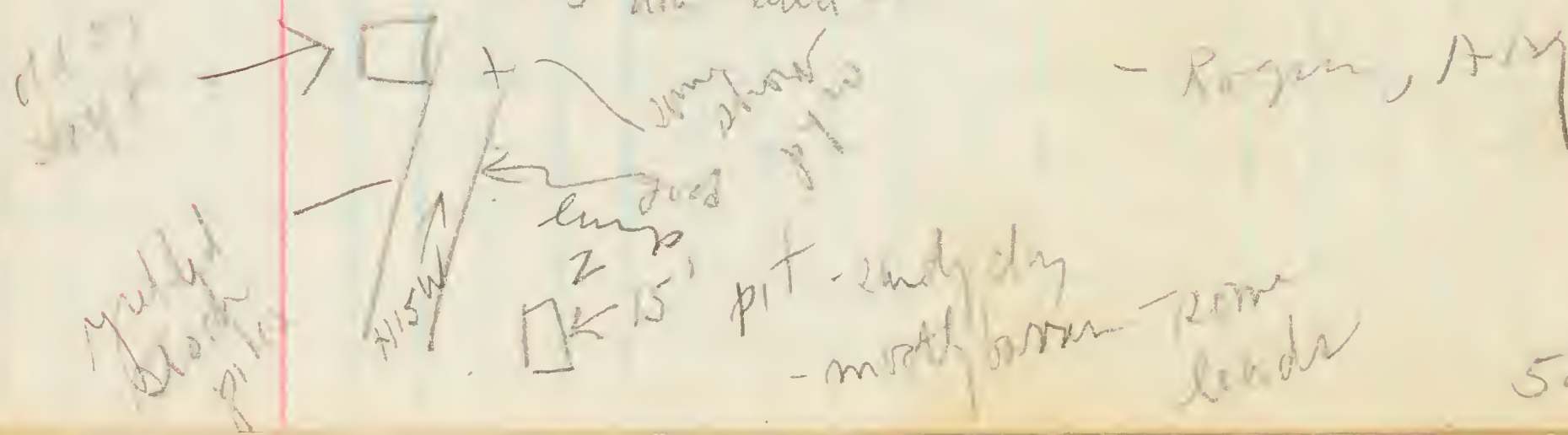
- 256

✓ #14 Sugar Shov Spring

- 1) St. Joe contact N 75 E 87 NW
(68 NW on St. Joe Spring)
- 2) Red Mic N 63 E, 72 NW
- 3) Ed. Mar N 64 E, 69 NW - block
for la - mic. in place next
to it

~ 100' ±

- in bottom - high grade
- Sugar Stephenson 2nd pit located 275W
of road tunnel has been exposed to 20' ±
+ bedding from dump has been exposed
some high grade
 - pit 365W of rd tunnel now 15' ±
- small mound pyroclastic in dump
- only one large stone
 - pit 10' ± deep + depth top of road
down to spot where Mues coll. catch
some good pyroclastic above it top
- get good pyroclastic + good lead more strike (red)
 - one bar 3x6' x 8" is not filled with earth
or mostly pure pyroclastic - true other side
just lower grade
 - have trench cut across to near old well
□ - 5' hole - little in



(SW of)

—SW—

- on below ~~at~~ pit 2 in 6 pit - about
a little good on - 50 to 50' lower

- 575W of tunnel on 8' pit - several
good leads near bottom - galled
broken pit & several lengths

Oct 7

- Tues

Thayer has (mining)

"Baker Land" (now owned by Pender, W. B.)
1995 on rd 1500 - pit ft. 92 m. NE
of Bent Back Mine

- Clinton E. W. 5 W - heavy on ledge
2280 (9:15)

(9:25)
- 2455 "sp. of 'flicker' - on SE of old
iron washer - Clinton on foot - for
film Mn - questionable "Crack" ore

257

- 2220 (9:35) - heavy pit - in ^{or} taken
no spec. - 8' x 10' x 4' x 2'

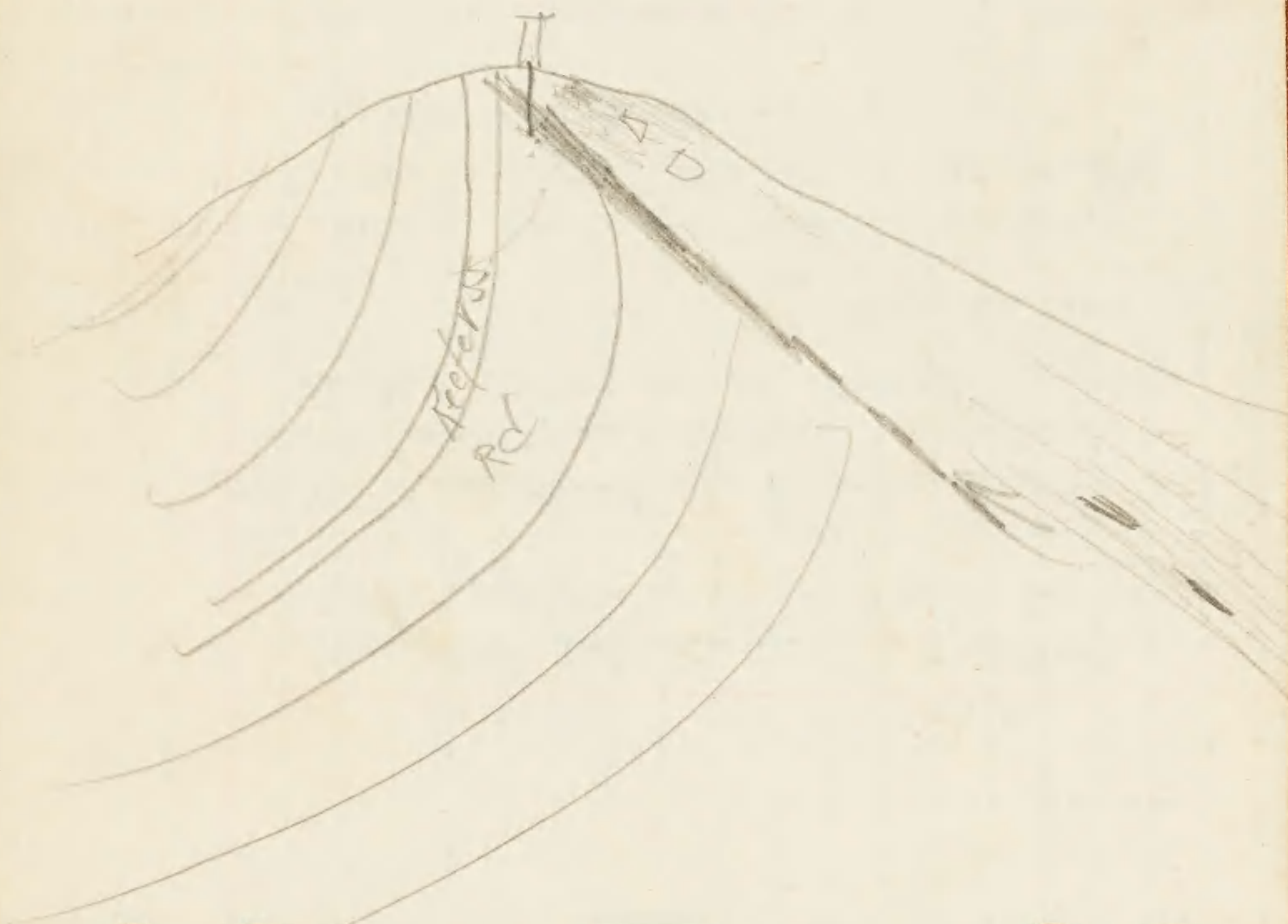
258

- 2275 (10:05) - lower pit - silver
on in taken

Roy Fandree

- block 24' x 30' - 31' ± in shaft

- G. L. Anderson - 1939 - first work
on property for MA - carbon (30' pit)
53



was prospecting for Fe. - between
Mun. Mt.
- Fred & John had 60 day option

was projected for F. - between
Mun & Mt.

- Fred & Kirk had 60 day option
+ worked two men 1939-40.
- Little one - hauled away
wagon load of their stuff
+ Andrew - no pay
- Thompson, of Alderson, W. Va
now sinking a buyer
- owned 102 acres in the
angle - all way to creek

3 hole at Meyer - in pit
had rock at 56'6" - 57'4" - and 59'
- cased at 35' (4-33')
(5" casing) - and 5' casing chest
+ chisel

Oct. 8 - Wed.

Goodly Kennedy Shaft 1916-50 in Goodly

Whitwell shaft 60' (1933) goodly

1934
50' shaft
down on

1934
45' below east
11570' 1935
3.5' depth/ton

Whitwell 1933
Shaft and rock
last section on

240' shaft
Down

1st pit E (34'±) of boundary
Thompson Pit #1 1938
15 day - Carren Knox - Cheboygan
(Thompson 1938
Fred 1939
Meyer 1940)

2nd Pit east of boundary
= Thompson #2 - 1938
to depth 20-25'
- deepened of Fred to 40'±
+ tunnel from side
- found satisfactory on
correlation to main shaft
(10-12 ton ore obtained)

3rd Pit East (covered shaft)
of Fred to depth 40' (12)
- Carren on regarding Mr -
some firing met - no real
red Clinton

#4
#3 " 41'6" beyond N of #3 on Rd
228 N41E of No. 2.
[in pit]

It is in main part a very tabular & intricately mixed up with a sandy clay with variable masses of chert in various shapes of decomposition. Some of black chert streaks 20' long - up to 1" thick with brown clay above & below. Main part of the blue hole is in distinctly but irregularly stratified & has with bands pink clay, yellow-brown clay & streaks of ore & black stained chert - along with every mass of lighter material up to 3' in diameter - one large button back rock encountered - some of both of brown clay exceed 3' in thickness - with streaks of "wood" & stained chert.

Oct 30

Visited Mt. Long area. At knuckle faulted area coll. spec. of supposed fault breccia - piece cemented by Mn. Rock is much replaced by Mn - many of ss. (brown) some have curved boundaries & piece of ore are bordered by bands of impregnated ss.



cavity
- impreg. ss
Mn

Nov 3

at Plasteron Va. The US G. & M. Co. is mining at 500' & has bored 57

Gyp (Hardydon) to 1000 ft
bottom - angle of the fault?

- 257a Ton. - Holly Brook
258a Ton. sil. foss - Boyd new pit
259 Db. - Gap Mule section
260 App. Ore - main pit
261 Bank Bank, main pit
262 " " pit above
263 Pit A - "Upper Linton" prospect, Potts Cr.
264 " B - " " " " "
265 Clinton fm. - Mt Mt Crest
266 Dr. float near Ramsey farm
267 " near Gold. St. H. - Mt Mt
268 " Red Top 100 yds. west of Ramsey home
269 Don. float near Boyd mine
270 Ton. lam. clay - Boyd pit
271 Ton. clay & Mn. - Boyd pit
272 Mn. " "
273 Mn. - Donahue prospect, near Grapeland
[274 Knoxville fault - Mt Terry area, Va.]

Sat. Feb 21, 1942

- 275 Mn. at fault in Brandy Mt. clay - Lough
275a ~~at~~ → contains "Cu. 32 ft" - N60E, 48SE
- St. R. with stylolite - also exp. between
Mn. & "Cu. 32 ft"

March 21, 1942 - Sat

To Mineral Ridge mine with
Miser, Mot Train (Vice Pres) &
Kyle (an officer in Co) & Jack
Kleece, Supt. of Plant [Col. Brittain,
a locker - not present]

- This group has spent about \$75000
putting the mill in shape. - known
as American Alloy Corp. - bought
plant from Nelson of Strasburg, Va.
- asked for \$100,000 for equipment
from R.F.C. - got \$20,000

This mine actually produced
12-13,000 tons concentrate per
1850 on. Monroe estimated
30,000 tons remain. [Holder
estimated less than Frasier]
but still was above 100,000 tons]

Two cars produced by plant
overrun recently - at a loss.

← 16' →



- heavy overburden ^{25'±} same to be sharp problem
- ore body 25'± thick & close to 1500' long -
- zone 185' wide in some places
- ore in bands paralleling bedding &
most part cracks - some replacement
- is related to fracture zone

[March 24 - for ... on p 62-63]

March 25 - Wednesday

with Mr. Ferguson - Rodgers - + Moore
Vancouver Mineral Co. SE of Lacey, Wash.
- have shipped 14 cars of 395 gr. Mn
+ some low grade. - from clay from which
- 5000 tons (10 layers) + 70,000 lbs (1 layer)
in King's estimate

- Low. pit - good hard ore in lowest 12'
of 8' ^{5'} ~~underneath~~ yellow clay below
very little hard ore.

- in middle pit much more ore in underlying
clay - most of ore small + hard - some
10' of ore - locally pretty good - a horizon of
surface layer is visible - not average
thickness of 10' of ore, but here
probably all ore.

- Upper pit - good ore - part of underlying
clay - biggest of 3 pits - underneath
may not be so good as the lowest
pit - ore up to 20' here - most
of ore hard - nodular masses up
to 6' - some big lumps ore in clay

- some glauco blocks in clay (found
originally in sol. cavities) - parts
of exposed clay form quartz rock -
some of ss. boulders in clay about
1' in diameter + are distinctly rounded
+ also there occur large nodules
of Mn. apparently derived from clay
some of Mn. in a vein + other
large masses of Mn. in bedded
layers

bottom part (now slumped), sand &
Pergamon - then to a good (1-15 a better)

- 750' x 45' wide x 25' deep (about 1000 cu yds)
- been along coast that may reflect
strata of water. This zone has been
inadequately prospected as to depth - 200
tons already mined out
- over rectangular area 650' x 200' x 5'
surface material at some point over
the volume found in 1-15, other
good 3,000 tons of concentration
+ trace of gold from rock
as has been taken out. = 4,100 -
cost at 5,000 tons. A small percentage
of this tonnage could be extracted
- might find considerably more ore.

N.E. Lewis, Gen. Mgr
Embrey Iron Co. L.E. Wheeler, Pres., Easton, Md.
Kestel Foster Mine on R. bank near
Mo. wharf. The area first hydrocarbon for
iron & other things, it is said for years.
Gives ore in layers & pockets around
pinnacle of unweathered shale ls. (lead
also occurs in weathered material in small
quantities)

- on E. side the Bumpass Cove to
old mine. good part near valley floor &
climbed to old Peach Orchard mine -
better to be seen now

March 24, Tuesday

Lick Mt. Prospect -

276

En route to town, stopped off to see Mr. Charles Huddell who operates a sand quarry on the highway (US 44) at point 6 mi ± NE of Wytheville, Va. Sand is trucked from quarry on Lick Mt. - in Enon gneiss. Drove over to town where Huddell lives & has his laboratory to work on Lick Mt. Mn. Visited prospect with Richard Huddell son of Chas. H.

Prospect lies at level 230' below crest - at point where crest is 750' under. Have driven a tunnel in road to axis of mt. - total length 7308'. In brecciated Enon gneiss cemented with Mn oxide - average content probably 9-14%. A cross-cut to it at pt. 75' in from portal was carried 29' - last 19' ± in clay (from Shady?) - probably across a fault. A cross-cut opposite on south (tunnel heads N 88 E) was carried in 38' - ended in ore - first 4' ± barren. A second cross-cut on South at point 125' in from portal was carried in 21' - all in ore & ending in same. (company claimed blasted ore "too fine" for their electric furnace. Sink shaft at level 75' below tunnel to depth 35' - ore in ore shale & clay on other. Some clay at end of tunnel - a fault? Have stopped 9 cars of surface

on running 14%

Estimate 200,000 tons of 9-14%
(using figure of 11 cu feet to ton) =
60,000 tons high grade = 28,000 tons Mn

Mar 26 - Thursday

Shady Valley

300 ft
100 ft

- 1) Blackburn Tract - little pond between
first gravel bar - south end of Shady
valley 1 3/4 miles S.W. of Shady valley center
- controlled by West Minto Co - small pit
- sand on upper floor full - not much
- could contribute to main flood
- sand is yellow (b') - not as much
- quite lot of sand from southwest point
- propagating sandstone - small pit
- few coarse or small sand - no large pits
- just down to dirt - some pits coarse
- upper side seem to show on upper
- on the side of side - but, only
- no one known from E - or distance
- the Black line is the most southerly
- probably within 100 ft of base of Shady
- all in crescent shaped area
- controlled by Bentley Coast Co (Oscar
Hille)

- 2) Wright pit - 1 mi N.W. of Blackburn place
- old, even pit (last some 100 ft) - no sand
- water pit now mostly filled - might be the
- in depth - 30 ft - 30 ft of sandstone
- underlying ss - in deepest mostly
- in orange-red sandstone

- 3) Scott Copper - Low level work site
 (in old open pit, across from & back -
 - Miravet pit of. (last Shredar) - small
 trace of ore but also several shallow pits
 - deeper pit shown on map - contains soft
 pyromorphite in underlying yellow clay - some
 hard high grade ore - could see ball layer
 & some small concentrations
 - the best prospect of company results
 on drill holes are available (also said to
 go to 30 - were on dumps of holes over
 4) Cole West adjoins a Vail - not oriented
 any more just - has high grade - not
 adequately prospected - there were
 1000 tons probably in surface zone of
 pit above

- 5) Lam Grant Mine - equipment up for sale
 today - has produced 2000 tons - cost
 see when cost 2500 to come from (mine)
 - pyromorphite in lower part of workings
 - R.H. Butler sold to Pantillone &
 de Goraleno ^{with him} - interested man is -
 Butler resigned in office - Lamm Grant
 operating fund of 20,000 ± - pit back
 - H. of Grandwell
 6) Had property - not oriented

7) marker - not mounted

8) Bentley - $1\frac{1}{2}$ x 5 ft. of floor - massive
put & fracture in left bank of river - some
are more good dark than 2. Some put
on shipped - all in large platy calcareous
masses up to 1 ft. across; some 2 ft.

March 27 - Friday - BELL HAWKINS

To reach Walk at point S. of Laurel (Hawkins)
+ to see one of his own deposits lying
300 above rd. - to Bell Hawkins
- very good on all benches - probably well
run down to 50% - exposed down on
sand at top of river (right side of)
- on the upper part of sand exposed
exposed face - some very large yellow sand
- evidently replacement - landing of clay
brack material of 200 - mm. also in some
thin and narrow bedding of low 15 - others
parallel to bedding - have shipped 58
to date - so may be in study
- is also typical transition beds
- one today of 100 or more small

- The poor part of the Kester Bend site
 has a good view to the south - see from south
 of there but not seen in place - has
 3 acres or more to the site has a blanket
 of tallow several feet in thickness covering
 good ore - just fine specimens of small
 workers - but not gone down to see in
 any pit - which there are a large no.
 - saw one pit below the surface clay &
 ore (1-2' thick) - looks good - small
 lower strata in shallow pit about 100 ft.
 spotted silic. dol. (like Embury's ore.
 Mass.) - some, but not any silic. - about 100 ft.

- saw as above there, but on the top of the
 may be some or so under ore on hill
 Kester Bend property - in hard but in
 very coarse gravel in place

TAYLOR VALLEY

Go to Taylor Valley - Mine operated by J. H. Taylor
 - on low grade - 3.5 - better - one day worker.
 - through #1 tunnel & to see poor pit (now
 in operation) about 100 ft. from the tunnel.
 Detailed diagram of ore occurrence in tunnel.
 In one saw band of brecciated clay that
 is much like that in the pit on the Mt.
 I am slightly and can hypothesis is that in
 of piece - there is no concentration in
 flow - ore is broken out in Co. should
 dig out some]

Taylor Valley

75 x 45' - in upper level
 55 x 37' - " lower "
 - two levels are 25' apart

$$\begin{array}{r} 75 \\ 40 \\ \hline 375 \\ 300 \\ \hline 3375 \end{array}$$

$$\begin{array}{r} 55 \\ 37 \\ \hline 385 \\ 165 \\ \hline 2035 \\ 3375 \\ \hline \end{array}$$

$$\begin{array}{r} 5410 \\ 25 \\ \hline 27050 \\ 10820 \\ \hline 135250 \end{array}$$

$$\begin{array}{r} 5000 \text{ cu yds} \times 1.5 = 7500 \text{ tons} \\ 27 \overline{) 136000} \\ \underline{135} \end{array}$$

dark @ 1:10 = 750 tons
 conc. in tunnel

$$\begin{array}{r} 750 \text{ tons} \\ 150 \text{ - mineral} \\ \hline 600 \text{ tons exclusive of} \\ \text{open cut above} \\ \text{add 100 tons for apparent} \\ \hline = 700 \text{ tons} \\ \text{reservoir} \end{array}$$

- now using 1/3 of water - very small stream
- not enough water in dry season last summer
- may have 5,000 tons of low grade here
- water for additional work probably not

750
150

600

750 - reserve
150 - reserve
600 - reserve

add 100 for the reserve

700

reserve

mm. 28 Antennae long

Blue Spring Mine - Marysville valley, owned
by O. D. Litchman. The most ore on ground
has got down 46' below surface to maximum
depth of 71' feet; the most of these samples were
taken at about 3' interval and weighed & assayed
(Ferguson figured 600 tons recoverable concentrate
being 2 small blocks - lot 25, value \$38, lot
7, 31) - then were 45" holes. From first group of
holes all of good material was removed
away for washing but in later holes only
25-50 lbs were taken from each good
interval. Went 3 ft below last very large
piece with Miner that this certainly is not
a workable deposit. Would rather we attempt
to estimate available tonnage (Ferguson
assumed a 25' volume around good hole
then assume to give one). No additional
prospecting good ore in this area. A depth
forecast of 1000 ft. would show only one
piece good ore, more ultimate view of
600' would show just good ore (a little
[ratio of concentrates to dirt worked very
high - Bond & Puckert saw only the
concentrates]).

277

W. L. H. S.

To R. He ridge - perfect - a dead
Bear wallows to L. H. - good $4000 \pm$
5000 ft. area.]

